## **REMARKS**

Claims 1-26 are pending in the application. Of those pending, claims 7-13 and 20-26 are allowed. Of those pending, claims 1-6 and 14-19 stand rejected. Applicants previously amended claims 7 and 20. No new matter is added by the amendments. Applicants do not make additional amendments to the claims. In view of the following discussion, Applicants submit that all pending claims are in condition for allowance.

## Claim Rejections

In the Office Action on page 2, numbered part 5, claims 1-3, 6, 14-16, and 19 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,505,299 B1 to Zeng et al. ("Zeng").

Applicants respectfully traverse the rejections based upon Zeng.

Each of the independent claims 1 and 14 requires that the encrypted, separate sub-bands are separately transmitted by the user to a recipient.

The Zeng reference neither discloses nor suggests that the encrypted, separate sub-bands are separately transmitted by the user to a recipient. The Zeng reference discloses data that has undergone a wavelet transform, has undergone encryption, and has been transferred through routers. However as previously argued, Zeng does not disclose or suggest "transmitting the encrypted sub-band data to a recipient separately from the other sub-bands." After requesting clarification to where the teaching is found, the Examiner states on pages 3-4, "Abstract, col. 1, lines 10-col. 3, line 63, figures 1-17 and associated descriptions, and more particularly figures 11-13, 16, 17, whereas the use of cryptographic encryption/decryption (key oriented) functions [are]...subsequently transferred across the Internet (i.e., a packet oriented, multi-path routed network)." After review of the Examiner's response, Applicant respectfully maintains that Zeng lacks the teaching of transmitting sub-bands separately from other sub-bands.

Zeng lacks the teaching of transmitting sub-bands separately from other sub-bands because a skilled artisan would not understand a reference to a router or the Internet to mean sub-band

Application No. 10/822,219 Response dated March 15, 2007

Reply to Office action of December 5, 2006

transmissions separate from other sub-bands. Although the Internet contains packet-oriented, multipath routed networks, the Internet sends sub-bands together as packets or interrelated packet fragments at the same time. Please note that sub-bands and packets are not the same. There is no indication explicitly from Zeng that the sub-bands are transmitted separately from other sub-bands.

Regarding an implied teaching in reference to the Internet, the Internet does not send subbands separately even in a packet-oriented, multi-path router network. "In computer networking, the term Maximum Transmission Unit (MTU) refers to the size (in bytes) of the largest packet that a given layer of a communications protocol can pass onwards. For example a 1500 byte packet, the largest allowed by Ethernet (and hence most of the Internet), would block up a 14.4k modem for about one second." If a packet size exceeds the MTU value, then the network breaks the packet into packet fragments. (http://en.wikipedia.org/wiki/Maximum\_transmission\_unit). A skilled artisan would understand these size limitations with regard to packets and packet fragments.

Furthermore, a packet-oriented, multi-path router network sends packets and packet fragments together. Sub-bands can fit into one packet (e.g. a user creates two encrypted sub-bands both of the size 750 bytes, and the network formats both sub-bands into the same packet) or multiple packet fragments. Each packet fragment has the same identification tag ("ID") referring to the originating packet (Each packet fragment is part of the same packet). The packet fragments have an ID to allow reassembly at the recipient's location. The network issues the packet/packet fragments the same ID because the data is being sent at the same time. (http://en.wikipedia.org/wiki/Packet). Because a packet-oriented, multi-path router network (e.g. the Internet) teaches encrypted sub-bands transmitted at the same time, Zeng does not teach or suggest explicitly or implicitly transmitting sub-bands separately from other sub-bands.

In contrast, the presently claimed invention requires that the encrypted sub-band be separately transmitted from the other sub-bands in any form of transmission over any type of network. In the prior art Internet context, anyone trying to steal the encrypted information can use one packet fragment's ID to steal the entire packet if the sub-bands are transmitted at the same time. Sending sub-bands separately provides added security as is disclosed in the presently claimed

Application No. 10/822,219 Response dated March 15, 2007

Reply to Office action of December 5, 2006

invention. Thus, in contrast to the prior art, stealing one ID (e.g., from one fragment or packet) would not result in obtaining all the sub-band data. As a result, the Zeng reference does not contain each and every limitation of claims 1 and 14. Therefore, Zeng cannot anticipate these claims.

On page 7, paragraph 3, of the Office Action, a variety of rejections were made under 35 U.S.C. § 103(a) using Zeng as the primary and sole reference. The shortcomings of Zeng have been recited above. Because these deficiencies are not overcome under § 103(a), these rejections are likewise overcome. Applicants respectfully request these rejections be withdrawn.

Applicants therefore respectfully request reconsideration and allowance in view of the above remarks and amendments. In the event there are any fees due and owing in connection with this matter, please charge same to our Deposit Account No. 11-0223.

Dated: March 15, 2007

Respectfully submitted,

By Matthew B. Dernier

Registration No.: 40,989

KAPLAN GILMAN GIBSON & DERNIER LLP

900 Route 9 North, Suite 504 Woodbridge, New Jersey 07095

(732) 634-7634

Attorneys for Applicant

 $G: \verb|\Clients| New Jersey Institute of Technology-436 | 436-8 | Amendment\_Office\_Action\_Response. document to the control of the control of$